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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/686,410

10/14/2003

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EXAMINER

REZA, MOHAMMAD W

ART UNIT

PAPER NUMBER

2136

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/686,410	Applicant(s) KOMARLA ET AL.	
	Examiner Mohammad W. Reza	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the arguments filed on 04/23/2007.
2. Claims 1-33 are pending in the application.
3. Claims 1-33 have been rejected.

Response to Amendment

4. The examiner approves the amendments made to claim 1-8, 10-17, 19-26, 28-29, and 31.

Response to Arguments

5. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashima et al hereinafter Kashima (U.S. Patent No. 5485598) in view of UMEDA MASAO hereafter Umeda (Japanese Patent Publication JP8044632).

7. As per claims 1, 10, 19, and 28 Kashima discloses a method comprising: one or more respective portions of write data to be stored in one or more locations in storage; generating, based upon the one or more respective portions write data, check data to be stored in the storage (col. 3, lines 30-53); and selecting the one or more locations so as to permit the one or more respective portions of the write data to be distributed among two or more storage devices comprised in the storage (col. 2, lines 5-12, claims 1-19). He does not expressly disclose encrypting, based upon at least one key, respective portions of write data to generate one or more respective portions of encrypted write data. However, in the same field of endeavor, Umeda discloses encrypting, based upon at least one key, respective portions of write data to generate one or more respective portions of encrypted write data; (claim1, paragraphs, 0016, 0011).

Accordingly, it would been obvious to one of ordinary skill in the network security art at the time of invention was made to have incorporated Umeda's teachings of encrypting the writing data with the teachings of kashima, for the purpose of suitably generating the encrypted writing data and store it in the plurality of raid storage area (paragraphs, 0011-0017).

8. As per claims 2, and 4 Kashima discloses the method wherein: the storage comprises a redundant array of independent disks (RAID); and the check data comprises one of parity data and a copy write data, and determining, based upon one or more credentials, whether to permit execution of one or more operations involving the storage (col. 2, lines 5-12, claims 1-

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19). He does not expressly disclose the encrypted write data. However, in the same field of endeavor, Umeda disclose the encrypted write data (claim1, paragraphs, 0016, 0011).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 2.

9. As per claims 3, Kashima does not disclose the method comprising: storing the at least one key in memory; and in response, to an attempt to tamper with the at least one key, erasing the at least one key from the memory. However, in the same field of endeavor, Umeda discloses storing the at least one key in memory; and in response, to an attempt to tamper with the at least one key, erasing the at least one key from the memory (claim1, paragraphs, 0016, 0011).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 3.

10. As per claim 5, 14, 23, and 31 Kashima discloses a method comprising: receiving a read request; retrieving one or more respective portions of the data from a plurality of storage devices comprised in the storage (col. 3, lines 30-53); and one or more respective portions of read data retrieved from storage to generate one or more respective portions of read data (col. 2, lines 5-12, claims 1-19). He does not expressly disclose the encrypted data and decrypting, based upon at least one key. However, in the same field of endeavor, Umeda disclose the encrypted data and decrypting, based upon at least one key (claim1, paragraphs, 0016, 0011).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 5.

11. As per claim 6 Kashima discloses one or more credentials, whether the request is authorized (col. 2, lines 5-12, claims 1-19). He does not expressly disclose prior to the decrypting of the one or more respective portions of the encrypted data. However, in the same field of endeavor, Umeda disclose prior to the decrypting of the one or more respective portions of the encrypted data (claim1, paragraphs, 0016, 0011).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 6.

12. As per claim 7-9 Kashima discloses the storage also stores metadata, and the metadata comprises partition information (col. 2, lines 5-12, claims 1-19). He does not expressly disclose the at least one key based upon at least one of one or more tokens and one or more passwords, comprises encrypting the metadata based upon the at least one key. However, in the same field of endeavor, Umeda disclose the at least one key based upon at least one of one or more tokens and one or more passwords, comprises encrypting the metadata based upon the at least one key (claim1, paragraphs, 0016, 0011):

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 7-9.

13. Claims 11-13 are listed all the same elements of claim 2-4 but in apparatus form rather than method form. Therefore, the supporting rationales of the rejection to claim 2-4 apply equally as well to claim 11-13.

14. Claims 15-18 are listed all the same elements of claim 6-9 but in apparatus form rather than method form. Therefore, the supporting rationales of the rejection to claim 6-9 apply equally as well to claim 15-18.

15. Claims 20-22 are listed all the same elements of claim 2-4 but in article form rather than method form. Therefore, the supporting rationales of the rejection to claim 2-4 apply equally as well to claim 20-22.

16. Claims 24-27 are listed all the same elements of claim 6-9 but in article form rather than method form. Therefore, the supporting rationales of the rejection to claim 6-9 apply equally as well to claim 24-27.

17. As per claim 29 Kashima does not disclose the system wherein: the circuitry comprises an input/output (I/O) processor, and non-volatile memory that is capable of storing the at least one key; and the circuitry is capable of detecting an attempt to tamper with the at least one key, and in to the attempt, erasing the at least one key from the memory, and wherein: the circuit board also comprises a host processor coupled to the circuit card slot via a bus, and one or more token memories to store one or more tokens; and additional circuitry to read one or more additional tokens stored in a removable token memory after the removable token memory is inserted into a token reader. However, in the same field of endeavor, Umeda disclose wherein: the circuitry comprises an input/output (I/O) processor, and non-volatile memory that is capable of storing the at least one key; and the circuitry is capable of detecting an attempt to tamper with the at least one key, and in to the attempt, erasing the at least one key from the memory, and wherein: the circuit board also comprises a host processor coupled to

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the circuit card slot via a bus, and one or more token memories to store one or more tokens; and additional circuitry to read one or more additional tokens stored in a removable token memory after the removable token memory is inserted into a token reader (claim1, paragraphs, 0016, 0011).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 29.

18. As per claim 32, and 33 Kashima discloses the system comprising: an input/output (I/O) controller coupled to a redundant array of independent disks (RAID); and a bus via which the controller is coupled to the circuitry, wherein: the circuit board also comprises a host processor coupled to the slot and the controller (col. 2, lines 5-12, claims 1-19).

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad w. Reza whose telephone number is 571-272-6590. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **MOAZZAMI NASSER G** can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohammad Wasim Reza

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